



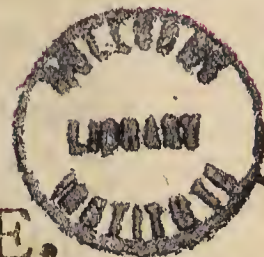
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A. D. 1750

APPENDIX

TO THE

LONDON MAGAZINE.



MDCCL.

p. 587
ch. 2

JOURNAL of the PROCEEDINGS and DEBATES in the POLITICAL CLUB, continued from Page 544.

As the Number of Seamen employed in the publick Service was last Year very much reduced, I shall now give you two very remarkable Speeches made in our Club upon that Subject, the first of which was made by C. Numisius, and was in Substance as follows, viz.

Mr. President,
S I R,



SHALL readily agree with the Hon. gentlemen, who have moved for the number of seamen proposed to be kept in pay for the service of the ensuing year, that this nation had never more occasion for frugality in every branch of the publick expence than it has at present; but it seems to me to be a strange piece of œconomy, to diminish our naval force, when at the same time we are increasing the number of

R——t N——t, Esq;

Appendix, 1750.

our land forces, or at least not diminishing it so much as by one man less than we had last year. This, I say, Sir, is a strange sort of œconomy, considering our situation; and such a one, as might make people believe, that those who advised and drew up the estimates for our sea and land force, imagined, that they were drawing up estimates for the French government, and not for that of England. In France, indeed, they must keep up a numerous standing army, not only for defending their wide extended frontier, but to enforce the absolute power of their king; and therefore in time of peace they must be more frugal as to their naval expence, than they can well be as to that of their army: But here in England we have no frontier to defend by a land army, and our sovereign desires not to establish his power upon any thing but the affections of his subjects: Our strength consists in our navy; and that we ought chiefly to depend on for offence

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fence as well as defence; therefore we ought to be frugal upon any other article of publick expence, rather than upon that of our navy.

I shall grant, Sir, that the army proposed by the estimate now before us, is not sufficient for enabling us to make that figure in Europe which we ought to do; but our present circumstances will not allow us to keep up any greater number; and if our ministers think, that our present circumstances will not allow us to keep up the number now proposed, without such an extraordinary reduction of our naval force, they ought to have proposed our keeping up a much smaller force by land, in order to prevent our being reduced to the necessity of diminishing our force by sea. If they have erred in their judgment, and given an imprudent advice to our sovereign, it is our business and our duty to correct that error; therefore, I think, we ought to postpone coming to any resolution upon the present motion, until we have taken the army into consideration; and if we should think it consistent with our safety to take nine or ten thousand men from the army, we may then keep a much greater force by sea than what is now proposed.

But this is not all, Sir: I am convinced, that the provision now proposed for our naval force will be found insufficient: We must run in debt; and that I shall always protest against. Our ministers, I know, have always been pretty apt to run in debt upon the articles relating to our navy, because they have found that a navy debt is what the parliament will most readily submit to the payment of; and to this condescension our ministers, during the last war, trusted more than any of their predecessors ever did; for tho' during the last war, from the beginning to the end of it, we had no enemy to deal with, that could or durst face us at sea, when our squadrons were

under a proper command, yet our ministers contracted in that war a larger navy debt than had been contracted during the whole war in queen Anne's reign; and that, tho' they had not a pretence to say, that the parliament had ever once scrupled to grant whatever sums they thought necessary for the service of the ensuing year.

This, Sir, is a most dangerous practice: It was this practice that first induced us to run in debt; and by the repetition of it our national debt is now swelled to such a monstrous bulk, that I am afraid, it will at last prove our ruin. It necessarily must, if no expedient can be found for paying off a great part of it at once: The increase of the sinking fund by the reduction of interest, will not by itself alone now do the business; for tho' the operation be sure, it is in its nature so slow, that the nation is in danger of expiring before it can work its effect. Besides, we cannot now propose to carry on any war without diverting that sacred fund from the use for which it was at first designed, and to which it ought to have been religiously applied; and from the nature of things, especially in their present aspect, it is impossible to suppose, that this nation can continue in peace, till our publick debts have been all extinguished by means of our sinking fund: Even supposing that such an improbable event should happen, we must gradually diminish our sinking fund, by abolishing many of those taxes that now lie so heavy upon the poor, and upon all materials for manufacture; by which taxes our commerce is rendered so troublesome and expensive, that we cannot navigate or carry on commerce so easily or at so cheap a rate as some of our neighbours do; and the price of labour is in this country raised so high, that none of our manufactures can be sold in foreign markets at so low a price as manufactures



factures of the same kind are sold by our rivals.

From this consideration, Sir, I must conclude, that if we do not very soon abolish some of those taxes, both our commerce and manufactures will in a few years be undone; and as this would greatly lessen the numbers of our people, and impoverish those that remained, the certain consequence would be, a considerable diminution, if not a total extinguishment of our sinking fund, which would put an end even to our hopes of being ever able to discharge our national debt. Thus, Sir, we are in what I am sorry to call a desperate situation: If we do diminish our sinking fund, by abolishing some of our taxes, we cannot possibly expect the publick tranquillity to last till it has worked the desired effect; and if we do not diminish that fund, by abolishing some of those taxes, the whole of it may sink under the ruin of our commerce and manufactures; and with it we shall lose not only the hopes of being ever able to pay our debts, but also the hopes of being able to preserve our superiority at sea; for no nation ever could support a formidable naval force without an extensive commerce.

This, Sir, should make us diligent in the search of other expedients for discharging a part of the national debt; at least, it should make us careful not to run into any new debt, by making the estimates for the service of our navy short of what that service may necessarily require, for the sake of gaining a short-lived popularity to our ministers for the time being. A neglect of posterity has always been a complaint against ministers; and with regard to most of them, the complaint has been but too well founded; but of late years our ministers have seemed to neglect not only posterity, but the very next stage of futurity. Present ease has been the only goddess they adored: I shall not say, that they left to-mor-

row to provide for itself; but I will say, that without any assurance of, or indeed any title to, the protection of Providence, they have generally in a great measure left the next year to provide for itself. In order to obtain with ease a present supply, they have brought in estimates, which they knew to be short of what the measures they had resolved on would require, and they have proposed funds, which in all probability would not fully answer what was to be charged upon them. By such means as these they first induced the nation to extend the annual expence beyond the annual supplies; and by degrees they at last brought us to consider only what we might raise upon our credit, without the least regard to what we might annually supply; as if the credit of this nation were inexhaustible, and as if by bringing one war to a happy issue, we could secure ourselves from ever being engaged in another.

Common sense, Sir, must convince every man that reflects, of the sudden destruction that must necessarily at last attend this method of proceeding. I say sudden, Sir, because credit, either publick or private, generally fails suddenly and often unaccountably; and our publick credit's failing will be attended with the more unavoidable destruction, because if ever it should happen, it will certainly be when we have the most occasion for it, that is to say, when we are in the heat of a heavy and expensive war, and have just met with some signal defeat, or are threatned with an immediate invasion. I am far from thinking that the credit of this nation is as yet stretched so far, that another pull would make it burst asunder: I believe, that with a cautious and prudent management we might still raise several millions upon our credit; yet we know, that during last war it was twice brought into great jeopardy: Once by ill success,

cess, when the rebellion wore its most dismal aspect ; and a second time by bad conduct, when, for supporting the war, we were forced to borrow six millions at once, and some people thought to have made a jobb of the publick necessity for enriching themselves and their friends ; but they found themselves so far mistaken, that it would have proved the ruin of most of them, if the preliminaries of Aix-la-Chapelle had not extricated them out of that danger, which their avarice had led them into.

Such gentlemen, indeed, had reason to rejoice at those preliminaries, and I believe, Sir, they were the only gentlemen in this nation that did rejoice at them. Even they will not have the assurance to say, that the preliminaries were such as the nation had reason to rejoice at ; but, bad as they were, they would not have been near so good, if the conduct of our navy and the bravery of our seamen had not made it as impossible for France to support the war by sea, as it was for us to support it by land, after the conduct of those gentlemen had brought our national credit upon the very brink of perdition. They therefore, of all men in the world, have most reason to plead for the preservation of our strength at sea, and for treating our seamen in the most humane and grateful manner ; but whether they have done so or no, I shall leave gentlemen to judge from the motion now before us, as well as from several other parts of our conduct since that treaty of peace was concluded, which the danger of our publick credit, or at least of some persons amongst us, had made necessary, and the success of our navy enabled us to obtain.

As I am always, Sir, under great anxiety about the preservation of our naval force, and as I think our seamen have not since the peace met with that usage they had a right to expect, I could not upon this oc-

casione avoid communicating some of my thoughts upon that subject ; but shall not conclude with any motion, only I must desire gentlemen to consider, that we have already disbanded near 30,000 seamen ; and if we now add 5000 more to that number, God knows, how many of them may put it out of our power ever again to press them into our service ; for whatever opinion we may have of their merit, every one knows, that it has justice done to it by those who are our most dangerous rivals in naval power, and who now at last seem to have learned, that it is impossible to have either commerce or colonies, without a sufficient naval force to protect them in time of war.

The other Speech upon this Occasion was made by C. Lutatus, and was to this Effect :

Mr. President,

S I R,

AS I have not the honour to be let into any of the secrets of the cabinet, I cannot with any degree of certainty judge of the present circumstances of Europe, or of the views and designs of any of the courts thereof ; but from our conduct here at home with regard to naval affairs, one would think, that our ministers had an assurance of the continuance of the present tranquillity as long as any of the present generation could remain alive. I confess, my hopes are far from being so sanguine ; but suppose they were, I should be against reducing the number of our seamen employed in the publick service, so low as that now proposed ; because I think, this nation should always have 15 or 20,000 seamen in pay, for preserving the respect due to the British flag, and for preventing our being under a necessity to distress our trade at the breaking out of a war.

A——I W——n.

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In time of peace it is not enough, Sir, to keep in constant readiness a few guard-ships here at home, and a few more upon the coasts of our plantations and colonies in America : Even in time of peace our men of war should be constantly traversing the ocean, the Baltick and Mediterranean, and appearing often in the ports of our allies, and of those who may afterwards happen to be our enemies. This would among all nations preserve our character as a maritime power, and it would prevent our merchant-ships from being insulted by those of any other nation. Gentlemen who live always at home, or who travel only to see courts, fashions, and curiosities, may not perhaps be sensible of the consequence of preserving a national character in foreign countries ; but merchants who reside there, or seamen who trade thither, often feel it, and are often made to smart for it, when it happens to be any way lessened or impeached. Then as to merchant-ships sailing in the open seas, they are often exposed to insults, when they happen to meet a foreign ship of superior force ; and as most foreign ships, especially the French, sail with a greater number of men than our merchant-ships usually do, our ships are more exposed to these insults than those of any other nation. This, Sir, I know by experience ; for I have been often in danger of being provoked to do something very irregular, when I have heard of the ill usage some of our merchant-ships had met with at sea from a French ship of superior force. But when such foreign ships are in continual danger of meeting with an English man of war at sea, they will be cautious of insulting any British subject, lest they should meet with one that had been informed of what they had done, and consequently meet with immediate punishment. And when our men of war appear often upon the coasts,

or in the ports of foreign nations, it will keep them in mind of our naval power, and enforce a respect for every British subject that either resides or sojourns in their country.

Thus we may see, Sir, what dangers and inconveniences our commerce may be exposed to, by reducing the number of our seamen to that which may be barely sufficient for our guard-ships, and those we ought to have always in readiness at home, in case of any sudden rupture ; and from hence we may see the necessity of our keeping, even in time of peace, a greater number of seamen in pay than what is now proposed. But the other reason is still stronger ; for we should avoid as much as possible our being ever obliged to bring our trade into any distress, yet this we must always do at the beginning of a war, if we do not keep above 10,000 seamen in the government's service in time of peace. Let us consider, Sir, that generally speaking a man must be bred up at sea, almost from his infancy, to make him an able and thorough-bred seaman ; such a man is incapable of gaining a livelihood by any sort of laborious business at land ; and if he gets into any sort of easy business, such as that of a shop-keeper or alehouse-keeper, he soon becomes unfit for the sea service. Therefore we can never have in the country any greater number of seamen than are in almost constant employment ; for if by any accident there happens to be a greater number than can get employment, most of the supernumeraries must go into foreign service ; therefore in time of peace, we should always have in the government's service such a number as may be sufficient for carrying on a war, with the addition of a fourth or a fifth part of the number usually employed in carrying on our commerce, coasting trade and fisheries ; for that proportion they may supply by landmen or young fellows, without

out endangering their ships ; but no trading vessel can sail with safety, if she has above a fourth or fifth part of her usual complement that are not able and expert seamen ; and consequently, when at the beginning of a war you are obliged to take above A that proportion from your trade, you not only bring it into distress, but many of our trading ships into great danger.

To this I must add, Sir, that as every war must necessarily increase the number of our seamen, we should B never at the end of a war discharge a great number at once ; for by so doing we force a great number of our seamen into foreign service : Whereas, if we discharge them by degrees, and detain none in the publick service but such as are willing to remain in it, multitudes by little and little get into some way of supporting themselves at land ; so that in a few years we may reduce the number in the publick service to that which in times of the most profound tranquillity we ought to keep in that service, D without laying any of our good seamen under a necessity of going into foreign service, and without giving our seamen in general a distaste to the service of the government ; which two advantages would surely be an equivalent for the expence the publick might be put to, by keeping for two or three years a greater number of seamen in pay than it had any necessary occasion for.

With regard to the land service, Sir, the case is very different : A common fellow taken from the plough, or from any mechanical employment, may in two or three months, or at least after the first campaign, make as good a soldier as the oldest veteran ; and when the war is over, and the regiment he belongs to disbanded, he may directly return to, G and get a subsistence by the business he was bred up to. Therefore, tho' our listing a great number of labourers and mechanicks at the begin-

ning of a war, may raise the price of wages, it can never put an absolute stop to any sort of business carried on at land ; and tho' we should at the end of a war disband a great number of soldiers at once, it can never force any of them into foreign service ; for tho' it would presently reduce the price of wages, yet as this would increase the business, and consequently require a greater number of hands, every soldier so disbanded might get a subsistence by the business he was bred to, and no man can be said to be forced to go abroad, if it be any way in his power to earn a subsistence at home. However, Sir, I cannot but approve of the method taken since the end of the last war, to give employment to C many of our disbanded soldiers and seamen by sending a colony to Nova Scotia. I only wish it had been resolved on sooner ; and I hope the same method will be taken at the end of every future war ; for that is certainly the most proper time for sending out a new colony.

What I have hitherto said, Sir, was upon a supposition that we have at present a reasonable prospect of a lasting tranquillity : What secret informations our ministers may have, I do not know ; but from publick appearances, I am sure, we can have no such prospect : Nay, I am afraid, that by endeavouring to prolong the peace, we shall accelerate the necessity of a war. During the late long administration we fell into the very same sort of error, with regard F to our disputes with Spain, as I truly prophesied to our then chief minister ; for as I had been much employed upon the coasts of America, I was desired by my friend Sir John Norris, to go along with him to wait on Sir Robert Walpole, which I accordingly did, and to him I very freely declared my opinion, that if reprisals had been issued upon the very first insult that had been offered to us by the Spaniards in America,

rica, we should have had no war, because they would have submitted to make reparation, and to such an explanation of the treaties subsisting between the two nations, as would have prevented any future insult; but that the damages were then so high, and they had been so long in possession of the custom of searching our ships in the open seas, that I believed an open war would be the immediate consequence of reprisals. Soon after this, Sir, I was again stationed upon the coast of America, and was at New-York when the orders for reprisals arrived: I received them with joy, and refitted my ship with the utmost expedition; but when I was just ready to put to sea, counter-orders arrived, and it was a long time before I had the satisfaction to receive any fresh orders either for reprisals or hostilities.

Every gentleman knows, Sir, what afterwards ensued; and if I am rightly informed, not only the Spaniards but the French too continue to insult us, and to incroach upon our rights in America, notwithstanding the late treaty of peace at Aix-la-Chapelle. I say, continue, Sir; for this is not a new practice in either. Before the late war the French had begun their incroachments, and had carried them on without any disturbance from us, till the late war happened, upon another account, between the two nations: I wish we had taken the opportunity of that war, to disturb them a little more than we did in America; for long before the war began, they had begun to plant the island of St. Lucia; and they had built a fort not only within the charter, but actually within the limits of the province of New-York; of which the governor of that province gave due notice to our ministers here, and desired new instructions upon that head, but never to this day received any; so that the French are now in quiet possession of that fort, and consequently of

a part of the province of New-York; and I am told they have very lately, that is, since the late treaty of peace, begun to build another at the mouth of St. John's river in Fundy-bay, which is certainly within the antient limits of Nova Scotia; but I hope proper orders have already been sent to our governor of Nova Scotia upon this head; for it is much easier to prevent building a fort than to demolish it after it is built; and if we are afraid that the preventing of it would occasion a war, we have much more reason to fear that consequence from our demolishing it. In all such cases it is ridiculous to negotiate, while they are fortifying: A stop to the fortification should be the previous article, and the article *sine qua non*, to a negotiation; and this should be an express instruction always given to every governor we send to America, both with respect to the continent, and with respect to the neutral islands in that part of the world.

With regard to the letters of reprisal at sea too, our governors in the West-Indies ought always, Sir, to be furnished with a power to issue them when any manifest injustice has been committed in that part of the world, upon the subjects of this nation, by those of any other. The Dutch governor at Curassoa is always furnished with such a power, and is seldom over scrupulous in the use of it, by which means the Dutch ships sail about their lawful business in those seas, with more safety than ours have done for many years; for the more quick you are in resenting an injury or insult, the fewer such you will always meet with; and if you shew yourselves so much afraid of a war, as to delay resenting in a proper and peremptory manner the first insult or incroachment, you may depend upon it, that a war will be the consequence of the first revenge you take; for by such a delay you not only give those you have to deal

with an opinion of your pusillanimity, but by submitting to several insults or incroachments, you throw into their hands a subject they think worth contending for by force of arms.

Now, Sir, as the Spaniards, if I am rightly informed, continue ^A their insults, and the French their incroachments, in America, I have reason to fear, that if we do not resolve upon a very speedy and vigorous resentment, an open war will be the certain consequence, unless our ministers are resolved to bear ^B with all the injuries and indignities that can be offered rather than hazard an open rupture, which I am persuaded they are not; and therefore I cannot but be surpris'd at the reduction of our naval force now propos'd; for if we should ^C issue orders for reprisals, or for demolishing the French forts within our limits in America, or upon the islands belonging to us in the West-Indies, surely such a great diminution of our naval force is not the way to prevent a war's, being the conse- ^D quence of our issuing such orders; and I hope our ministers do not think of taking a whole year for negotiating, while the French are in the mean time fortifying themselves in our territories, and the Spaniards plundering our merchants under pretence of what they call contraband goods.

I am therefore, Sir, so far from thinking, that the hopes we have of a lasting tranquillity, can be a solid foundation for our discharging such a number of seamen, that, I believe, our discharging such a number of ^F seamen as we have lately done, and now propose to do, will contribute towards putting a speedy end to the tranquillity we now enjoy, by encouraging both the French and Spaniards to continue their incroachments and insults, and to declare war against us, ^G if we should begin to shew a proper resentment. Our ministers may, if they please, continue to negotiate, but if the Spaniards continue to in-

sult, and the French to incroach, the people will not bear it long; and from the fate of their predecessor, our present ministers may learn, that the most pacifick minister may be forced into a war by a brave and injured people. If this should be the issue, which, I think, it probably will, we shall then to our cost, tho' I hope not to our ruin, feel the fatal effects of our precipitate frugality, in discharging such a number of our brave seamen; but as I am entirely ignorant of the present state of our negotiations either at the court of France or Spain, and as my fears proceed only from publick appearances, I shall not conclude with any motion, but with a wish, that our ministers may not allow themselves to be amused with deceitful negotiations, and thereby led into a false or ill-grounded security.

[*This JOURNAL to be continued in our MAGAZINE for January, 1751.*]

More Extracts from the Philosophical Transactions, No. 491. (See p. 544—547.)

An Account of a new invented arithmetical Instrument, called a Shwan-pan, or Chinese Accompt-Table; by Gamaliel Smethurst.

^E **T**HE Chinese have for many ages picqu'd themselves on being the most wise of any nation in the world; but late experience and closer converse with them hath found this pride to be ill-grounded. One particular, in which they think they excel all mankind, is, their manner of accompting, which they do with an instrument composed of a number of wires with beads upon them, which they move backwards and forwards. This instrument they call a Shwan-pan.

Now I trust I have formed one on the plan of our 9 Digits, that in no case falls short of the Chinese Shwan-pan, but in many excels theirs.

The Chinese, according to the accounts of travellers, are so happy as to have their parts of an integer in their coins, &c. decimated, so can multiply or divide their integers and parts as if they were only integers. This gives them the advantage over Europeans in reckoning their money, &c. But then, as they have no particular place

place set apart for the lesser denominations of coins, weights, measures, &c. their instrument cannot be used in Europe, nor can it be so universally applied to arithmetick as mine, for I have provided for the different divisions of an integer into parts.

This instrument hath the advantage of our digits in a great many cases. First, the figures can be felt, so may be used by a blind man. If it had no other, this alone would be sufficient to gain it the attention of mankind.

Another advantage in it is, that, when attained, this method is much swifter than by our digits, and less liable to mistakes: It is likewise not so burdensome to the memory in working the rules of arithmetick, as by our digits, we being obliged to carry the tens in the mind from one place to another, which are set down by the Shwan-pan. — One may work a whole night, without confusing the head, or affecting the eyes in the least.

It may be of great use to teach people the power of numbers, likewise to examine accompts by; for, as the person will, by the Shwan-pan, work it a quite different way, it will serve as if another person had gone thro' the accompt; if it proves right with the written one, they may rest assured the work is true.

It may be a very pretty lure to lead young people to apply their minds to numbers*.

An Account of the Locusts, which did waſt Damage in Walachia, Moldavia, and Tranſilvania, in the Years 1747 and 1748; and of ſome Swarms of them, which, in the Months of July and Auguſt, 1748, came into Hungary and Poland; by a Gentleman who lives in Tranſilvania †.

IT is certain, that the locusts came into Tranſilvania from Walachia and Moldavia, and particularly thro' those narrow openings in the mountains, which are commonly called paſſes; the moſt conſiderable of which, in the neighbourhood of Clauſenburg, is called the paſſ of the Red Tower, and thro' others not far from Karliſtat, which are common roads from Tranſilvania into Moldavia and Walachia.

The firſt ſwarms entered into Tranſilvania in Auguſt, 1747: Theſe were ſucceeded by others, which were ſo ſurpriſingly numerous, that when they reached the Red Tower, they were full four hours in their paſſage over that place; and they flew ſo cloſe, that they made a fort of

noiſe in the air, by the beating of their wings againſt one another. The width of the ſwarm was ſome hundreds of fathoms, and its height or density may be eaſily imagined to be more conſiderable, inas-much as they hid the ſun, and darkened the ſky, even to that degree, when they flew low, that people could not know one another at the diſtance of 20 paces. But whereas they were to fly over a river that runs in the vallies of the Red Tower, and could find neither reſting-place nor food; being at length tired with their flight, one part of them lighted on the unripe corn on this ſide of the Red Tower, ſuch as millet, Turkiſh wheat, &c. another part pitched on a low wood: Where having miſerably waſted the produce of the land, they continued their journey, as if a ſignal had been actually given for a march. The guards of the Red Tower attempted to ſtop their irruption into Tranſilvania by firing at them; and indeed where the balls and ſhot ſwept thro' the ſwarm, they gave way and divided; but, having filled up their ranks in a moment, they proceeded on their journey.

They are of different forms, according to their different ages: For when, in the month of September, ſome troops of them were thrown to the ground by great rains, and other inclemency of the weather, and thoroughly ſoaked with wet, they crept along in queſt of holes in the earth, dung, and ſtraw; where, being ſheltered from the rains, they laid a vaſt number of eggs, which ſtuck together by a viſcid juice, and were longer and ſmaller than what is commonly called an ant's egg, very like grains of oats. The females, having laid theſe eggs, die like the ſilk-worm; and we Tranſilvanians found by experience, that that ſwarm which entered into our fields by the Red Tower, did not ſeem to intend remaining there, but were thrown to the ground by the force of the wind, and there laid their eggs; a vaſt number of which being turned up, and cruſhed by the plough in the beginning of the enſuing ſpring, yielded a yellowiſh juice.

In the ſpring of 1748, certain little blackiſh worms were ſeen lying in the fields and among the buſhes, ſticking together, and collected in cluſters, not unlike the hillocks of moles or ants. As nobody knew what they were, ſo there was little or no notice taken of them; and in May they were covered by the ſhooting of the corn ſown in the winter. But the ſubſe-

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* The inventor produced one of theſe inſtruments before the ſociety, and worked ſeveral queſtions in arithmetick upon it. It much reſembles the Abacus of the ancients. C. M.

† See London Magazine for 1747, p. 417. And for 1748, p. 336, 379, 384, 407. With a figure of the creature, p. 34.

quent June discovered what those worms were ; for then, as the corn sown in the spring was pretty high, these creatures began to spread over the fields, and become destructive to the vegetables by their numbers. Then at length the country people, who had slighted the timely warning given them, began to repent of their negligence ; for, as these insects were now dispersed all over the fields, they could not be extirpated without injuring the corn.

At that time they differ little or nothing from our common grasshoppers ; having their head, sides, and back of a dark colour, with a yellow belly, and the rest of a reddish hue. About the middle of June, according as they were hatched sooner or later, they were generally a finger's length, or somewhat longer, but their shape and colour still continued.

Towards the end of June they cast off their outward covering ; and then it plainly appeared they had wings, very like the wings of bees, but as yet unripe and unexpanded ; and then their body was very tender, and of a yellowish green : Then in order to render themselves fit for flying, they gradually unfolded their wings with their hinder feet, as flies do. And as soon as any of them found themselves able to use their wings, they soared up, and, by flying round the others, provoked them to join them ; And thus their numbers increasing daily, they took circular flights of 20 or 30 yards wide, until they were joined by the rest ; and, after miserably laying waste their native fields, they proceeded elsewhere in large troops.

Wheresoever those swarms happened to pitch, they spared no sort of vegetable ; they eat up the young corn, and the very grass ; but nothing is more dismal to behold than the lands in which they were hatched ; for they so greedily devoured every green thing thereon, before they could fly, that they left the ground quite bare.

There is nothing to be feared in those places to which this plague did not reach before the autumn ; for the locusts have not strength to fly to any considerable distance, but in July, August, and the beginning of September ; and even then, in changing the places of residence, they seem to tend to warmer climates.

Different methods are to be employed, according to the age and state of these insects ; for some will be effectual as soon as they are hatched ; others when they begin to crawl ; and others, in fine, when they are able to fly. And experience has taught us here in Transilvania, that it would have been of great service, to have diligently sought out the places where the females lodged ; for nothing was more easy, than carefully to visit those places in

March and April, and to destroy their eggs or little worms with sticks or briars ; or if they were not to be beat out of the bushes, dunghills, or heaps of straw, to set fire to them ; and this method would have been very speedy, convenient, and successful ; as it has been in other places. But in the summer, when they have marched out of their spring-quarters, and have invaded the corn-fields, &c. it is almost impossible to extirpate them, without thoroughly threshing the whole piece of land that harbours them, with sticks or flails, and thus crushing the locusts with the produce of the land.

Finally, when the corn is ripe, or nearly so, we have found, to our great loss, that there is no other method of getting rid of them, or even of diminishing their numbers, but to surround the piece of ground with a multitude of people, who might fright them away with bells, brass vessels, and all other sorts of noise. But even this method will not succeed, till the sun is pretty high, so as to dry the corn from the dew ; for otherwise they will either stick to the stalks, or lie hid under the grass. But when they happen to be driven to a waste piece of ground, they are to be beat with sticks or briars ; and if they gather together in heaps, straw or litter may be thrown over them, and set on fire. Now this method serves rather to lessen their numbers, than totally destroy them ; for many of them lurk under the grass or thick corn, and in the fissures of the ground, from the sun's heat : Wherefore it is requisite to repeat this operation several times, in order to diminish their numbers, and consequently the damage done by them. It will likewise be of use, where a large troop of them has pitched, to dig a long trench, of an ell in width and depth, and place several persons along its edges, provided with brooms, and such-like things, while another numerous set of people form a semicircle, that takes in both ends of the trench, and encompasses the locusts, and, by making the noise above-mentioned, drive them into the trench ; out of which if they attempt to escape, those on the edges are to sweep them back, and then crush them with their brooms and stakes, and bury them, by throwing in the earth again.

But when they have begun to fly, there should be horsemen upon the watch in the fields, who, upon any appearance of the swarm taking wing, should immediately alarm the neighbourhood by a certain signal, that they might come and fright them from their lands by all sorts of noise ; and if, tired with flying, they happen to pitch on a waste piece of land, it will be very easy

easy to kill them with sticks and brooms, in the evening, or early in the morning, while they are wet with the dew; or any time of the day in rainy weather; for then they are not able to fly.

I have already taken notice, that, if the weather be cold or wet in autumn, they generally hide themselves in secret places, where they lay their eggs, and then die: Wherefore great care should be taken at this time, when the ground is freed of its crop, to destroy them, before they lay their eggs.

In September, 1748, we received certain intelligence, that several swarms of locusts came out of Walachia into Transilvania thro' the usual inlets, and took possession of a tract of land in the neighbourhood of Clausberg, near three miles in length; where it was not possible to save the millet and Turkish wheat from these devourers.

I am of opinion, that no instances of this kind will occur in our history, except what some old men remember, and what we have experienced; at least there is no account, that any locusts came hither, which did not die before they laid their eggs; however, this is a known fact, that, about 40 years ago, some swarms came hither out of Walachia, and did vast damage where-ever they settled; but either left this country before the end of summer, or died by the inclemency of the weather.

Perhaps better remedies may be had from other countries, where this evil is more common, against next spring; for the winter season is very safe from this plague.—Here ends the gentleman's account, after which are the following remarks.

The gentleman, to whom the foregoing account was sent from Transilvania to Vienna, and who transmitted it hither, has also informed us, that a considerable number of these locusts had also come within 20 leagues of that city; and that one column of them had been seen there, which was about half an hour's journey in breadth; but of such a length, that, after three hours, tho' they seemed to fly fast, one could not yet see the end of the column. The eggs of these animals, which have been preserved in dry mould, have produced nothing; but those that have been preserved in mould that was moistened with water from time to time, gave early in the spring of 1749, some of these grasshoppers. The little ones were, soon after they came forth, of the size nearly of ordinary flies: They had already the form of grasshoppers, but they had as yet no wings. This observation shews, that the author of the foregoing account was

mistaken, when he says, "These insects had at first the form of grubs, or small worms." They change their skin several times, but they do not acquire wings till they have changed for the last time.

The grasshoppers that were taken in England in 1748, have been compared with those that have been sent over from Hungary and from Poland that same year, and they have been found to be perfectly of the same kind. There are in Sir Hans Sloane's collection some of the same sort of locusts or grasshoppers preserved in spirits of wine, and which were taken up here above 30 years since, and are exactly like those from Egypt and Barbary.

The Case of Mr. Smith, Surgeon, at Sudbury, in Suffolk; the Coats of whose Stomach were changed into an almost cartilaginous Substance.

HE was in the vigorous time of life, being no more than 36 years of age, and, to all appearance, of a strong well-set habit. His way of living was quite regular; but his practice of midwifery, which was pretty large, often forced him in severe weather from a warm bed into bad roads, and sometimes into raw uncomfortable houses.

He had for several years complained of uneasiness at his stomach, but it was not considerable till about Jan. 1746-7. From that time he almost constantly threw up his food within an hour or two after taking it, and he felt violent pain about the scrobiculus cordis. Divers physicians were advised with, but medicines availed him nothing; nor had he any ease, except from opiates, or spirituous liquors; and this was of short continuance.

It being, in the September following, recommended to him to go to Bath, he for some weeks drank the waters, and afterwards bathed. The first had no remarkable effect, but he found himself worse after bathing. Upon his return home, new physicians were consulted, and new methods were tried, but to no purpose; and, to make life tolerable, he was forced to be very free in the use of spirituous liquors and opiates.

In Feb. 1747-8, he voided, by two or three stools, about a couple of ounces of matter. Some weeks before his death the pains went off, and his vomiting was at times stayed; but whenever that happened, whatever he took ran directly thro' him. And indeed he was now and then, during the whole illness, subject to bilious dejections.

On this remission of the symptoms, his friends flattered themselves yet that all might do well; but his wasting, which had

had long began, continued; and his legs, especially one of them, became œdematous. After growing gradually weaker, till nature was quite spent, he expired, with the utmost serenity of mind, in the evening of August 7.

His body being, pursuant to his request, opened in the presence of Dr. Scarling, A and three or four surgeons, the coats of the stomach were found changed into an uniform, white, inelastick, almost cartilaginous substance, which was four tenths of an inch in thickness. Besides this strange alteration in its coats, the stomach was so contracted, as to be incapable of holding more than five or six ounces; and its inner surface was besmeared with a various coloured matter. The rest of the viscera seemed to be quite unaffected, and every thing was in its natural situation, except the omentum, which, besides being, as it is in all tabid bodies, vastly wasted, was necessarily drawn upwards by the contraction of the stomach.

Remarks on the Case, by the Gentleman who sent it.

It is highly probable, that this gentleman's disorder, whether constitutional or acquired, was at first an obstruction in those glands, which separate the humour that serves to defend the villous coat from the acrimony of what is taken into the stomach, and to prevent its being stimulated by the aliment in digestion; for want of which it was so subject to irritation, that scarce any thing would stay upon it. The matter voided by stool was undoubtedly formed in the stomach, because he never complained of considerable pain in any other part; besides, had it been from an abscess in the intestines, or any other of the viscera, the seat of it would in all likelihood have been apparent. The looseness, which, in the latter part of his illness, always attended him when the vomiting ceased, plainly shews, that the stomach had at that time acquired a great, if not its greatest, degree of contraction; for which reason, as it could contain but little, any quantity of food must, if not thrown up, go immediately downwards. The going off of the pain some weeks before his death, was owing to the sensibility of the coats of the stomach being in a great measure, or quite destroyed. The bilious dejections that frequently attended him, may be ascribed to want of digestion; which, as little or no chyle was sent into the duodenum, rendered the bile useless. The consequence of this was a non-secretion of that humour, an accumulation of it in the liver, or gall-bladder, its being reconveyed into the blood, or its going off by

stool. If the first or third had been the case, it would have shewn itself in a jaundice; if the second, there would have been an abscess in the liver or gall-bladder; so that of course it must run off by stool. Spirituous liquors might help to bring on this contraction, inelasticity, and insensibility of the stomach: But it seems pretty clear, that they were not the sole cause, else immoderate drinkers of them would generally be affected in the same manner.

The other Articles contained in this Number, are as follow.

- I. **A** N account of glasses of a new contrivance, for preserving pieces of anatomy or natural history in spirituous liquors.
- II. *Observationes aliquæ astronomicæ à reverendo P. P. Suarez è S. J. in Paraguarina habitæ, et per D. Suarez M. D. cum Soc. Regali communicatæ.*
- III. *Observatio eclipsis solaris Julii 14, et lunæ Julii 28, 1748. Madirti habitæ.*
- IV. **C** Extract of a letter from Benj. Heath, Esq; to Peter Davall, Esq; Secr. R. S. inclosing a proposal for intirely removing the only real defect in the lateral operation for the stone.
- V. **A** letter from Mr. Henry Baker, F. R. S. to the president, concerning some vertebrae of ammonitæ, or cornua ammonis.
- VI. **A** catalogue of the fifty plants from Chelsea-garden, presented to the Royal Society by the company of apothecaries, for the year 1746.
- VII. **The** Rev. Mr. Robert Clarke, to Mr. Fleming, concerning a boy, who had a calculus formed between the glans and the præputium.
- VIII. **The** establishment of a new genus of plants, called *Salvadora*, with its description.
- IX. **A** state of the English weights and measures of capacity, as they appear from the laws as well ancient as modern; with some considerations thereon.
- X. **A** letter from Dr. le Cat, F. R. S. to C. Mortimer, M. D. Secret. R. S. concerning the cure of dry gangrenes, &c.

Conclusion of the WHIMSICAL PHILOSOPHER, Dissert. V. That Dominion does not follow Property, but the Sword, with a Proposal for restoring a warlike Spirit and military Discipline to the People in general. (See p. 556.)

AFTER this account of the present generation, and I believe every one will admit it is too generally true, can we expect that the people should have any warlike spirit or military discipline among them?

them? Can we expect they should have any regard for their landlords, or for any great family in their neighbourhood? Can we in short expect, that a lord or commoner, let his land estate be what it will, should have any power? A minister of state, a general, a lord-lieutenant, or sheriff, may have power; but it is not his power, it is the power of the state, the exercise whereof is committed to him for a time, and may be taken from him when the sovereign pleases. Nay, he has not, properly speaking, a power over the rents of his estate; for by an unjust government, he may be turned out of the receipt, without his being able to make any opposition. It was not so with our ancient barons: They could make opposition, and did often raise armies for that purpose. But so powerless are our great men now become, that one of the greatest subjects, and one of the most popular men in the kingdom, was some years since forced to fly his country, because, as he said himself, he could not raise men enough to defend him against a regiment of dragoons.

I do not mention this with any design to justify that nobleman: I mention it only to shew how much the people are changed from what they were, even in the days of Q. Elizabeth; for even in her reign, as wise and just a one as perhaps we ever had, a private gentleman, Leonard Dacres by name, got together a body of 3000 men, for espousing his private quarrel against the government, and with them fought a battle against the queen's troops, with doubtful success, but at last was overcome.

From what I have said, the reader may perhaps suppose, that I am for restoring the ancient power of the barons, or that sort of constitution which was introduced by William the Conqueror, who gave such a number of manors to his chief followers, and vested them with such great powers, in order to enable them to keep the people he had conquered in subjection, that it was for ages afterwards very difficult to hold them in subjection to the crown. This, I confess, I should be for, if I thought that no other method could be found for preserving a true warlike spirit and military discipline among the people; but as no state can ever be at peace, or exert its strength against a foreign enemy, when a few of the subjects are invested with so much power, that two or three of them combining together, or confederating with a foreign enemy, may bid defiance to the power of the state, which is now the case both in Germany and Poland; and as, I think, another method may be found for attaining the end I pro-

pose, therefore I am against investing any subject with so much power as our great barons anciently had.

But before I offer what I think proper for this purpose, I must consider a maxim laid down by Mr. Harrington, to wit, *That dominion or empire always follows property.* I shall grant it ought to do so, and will do so, as long as the men of property keep the sword in their own hands; but if, like the French colony in America, they grow tired of carrying their arms, and give them to be carried by their slaves, those slaves will turn their arms against them, and by that means change conditions with them. Thus it has fared with the men of property in most countries of Europe: To free themselves from the trouble and danger of defending their property, and that they might indulge themselves in ease and sensual pleasure, they furnished their prince with money to hire mercenary soldiers, by which means they are become the slaves of their prince and his mercenary army, and have really no more property than what the latter please to allow them; for can any man be said to have a property in his estate, when his prince can impose, and by means of his army make him pay to him what tax or tribute he pleases?

It is therefore so far from being true, that dominion always follows property, that both property and dominion always follow the sword; and slavery will always be the lot of those, who neither have arms, nor courage or skill to make use of them, if they had. The king of France is virtually as much master of all the lands in his dominion as the Grand Signior, and the subjects of France are as much slaves as the subjects of Turkey. The only difference is, that the government of France has more wisdom, and is founded upon better maxims, than that of Turkey; for the most absolute monarchy that ever was, or can be, if it be wise, will propagate, as much as possible, a belief among its slaves, that they are secure in their property; because the more secure they think themselves in their property, the more industrious they will be to improve and increase it; and the more they improve or increase their property, the more they will be able to contribute or pay to their masters, the king and his army; for in such governments the king, and the leaders of his mercenary army, never consider what the people are willing, but what they are able to pay; whereas the governors of a free, brave, and warlike people, where there is no mercenary army, or not such a one as can master the people, must consider what the people are willing

to pay, and can desire no more of any man's property by way of tax or imposition, than what they shew to be requisite for supporting the necessary publick expence.

I know it may be said, that what has of late happened in this country is a proof, that dominion does not always follow the sword; because we have long had a mercenary army kept up, and I have myself shewn, that the people have now no warlike spirit or military discipline among them, yet the freedom of our government is still preserved, nor has the military so much as attempted to assume dominion, nor is it probable they ever will, as long as they are kept up but from year to year, and commanded mostly by gentlemen of family and fortune.

As to what they have done, I must first answer, that till the year 1716, we never had in time of peace such a numerous army as could assume dominion, or alter the form of our government; and since that time they have had no occasion to do so; for no prince or general will desire to alter our form of government, as long as the parliament gives him every thing he asks, and does nothing he has cause to find fault with. Besides, an army of natives must be kept up for a long time, and much practised on, before even the common soldiers will consent to be instrumental in overturning the liberties of their country. We are not therefore to judge what the army may do from what they have done, nor can we fear any thing from them, until they have a prince or general at their head, who is resolved to have or do something, that a parliament legally chosen will not consent to.

But if this should ever happen, the prince or general will resolve to have such a parliament returned by undue methods as will consent to what he proposes, or he will dissolve the parliament, and establish in its stead a council of officers. In the first case, I make not the least doubt but that the army would support him and his illegal parliament against the resentment of the people; nor do I less doubt but that such a parliament would pass such laws as might enable him to have always such parliaments for the future. And even in the last case, if the common soldiers should generally resolve to stand by their prince or general, I am afraid, we should find little benefit from the army's having been kept up from year to year, by consent of parliament, or from it being commanded by men of family and fortune; for it would be presently given out, that the parliament which refused to continue the army, or brought on its own dissolution, was composed either of jacobites or republicans: Every officer who resigned

would be deemed by the other officers and soldiers a jacobite or republican; and as such officers could expect no protection from an unarmed, undisciplined people, I believe, very few would risk the consequences, especially as it is a received rule in the army, that no officer can resign his commission without the leave of his sovereign.

Therefore, if any future king, or even a favourite general of our army, should resolve to abolish our civil, and establish a military government, we have, I think, nothing to trust to but the virtue of the common soldiers of our army; and as they are men of no property, and generally allowed to be none of the best sort of men in the kingdom, I much suspect they would do as the slaves of the French colony before mentioned did, they would turn against us those arms we had put into their hands for our ease, and from being our servants, would become our masters.

Can we prevent this by the establishment of a militia? I am sure we cannot by any scheme for that purpose, that has been hitherto brought into parliament. By them it has been generally proposed, to keep up a certain number of militia to be composed of men of the lowest rank, and commanded by such gentlemen in each county as the king should appoint. This is still trusting the sword in the hands of men of no property, and leaving the men of property, as they are now, quite destitute of any sort of warlike spirit or military discipline, which would rather increase than prevent the danger; because if our army should set up against our civil government, most of our militia soldiers, and perhaps many of their officers, would join the army, for the sake of entering into immediate pay.

Could we expect any more certain security from the law lately proposed in parliament, for limiting the time of a soldier's being obliged to serve in the army? none at all; because it is attended with the same danger in every respect. In short, all such schemes, are schemes against nature. It is putting empire in the hands of one set of men, and the sword in the hands of another; whereas, from the nature of things it is impossible, that these two should long continue separate. In Venice they have continued separate longer than they ever did in any country in the world; but this proceeds from their seat of government's being unapproachable by their army; from the few wars they have had, and their little success in any of them; from their employing always a foreigner for their general in chief; and from several other causes too tedious to mention.

There